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Familism and Psychological Well-Being Among College-Attending Young Adults : Examining Multiple Mediation and Moderated Mediation Effects

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FAMILISM AND PSYCHOLOGICAL WELL-BEING AMONG COLLEGE-
ATTENDING YOUNG ADULTS; EXAMINING MULTIPLE MEDIATION AND
MODERATED MEDIATION EFFECTS

by

Yiting Cai

A Master's Thesis Submitted to the Faculty of

Montclair State University

In Partial Fulfillment of the Requirements

For the Degree of

Master of Arts


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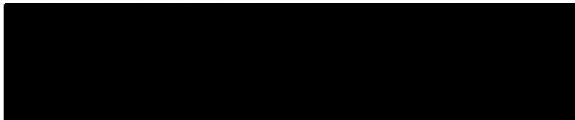
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Abstract

The purpose of this study was to investigate the relationships between familism and psychological well-being using an ethnically diverse sample of 636 college-attending young adults. Specifically, this study examined whether familism was related to depressive symptoms and life satisfaction directly, as well as indirectly through family support and conformity to parental expectations. The moderating role of gender in the proposed associations was also explored. PROCESS was employed to test the proposed multiple mediation and moderated mediation models. The results showed that the relationship between familism and depressive symptoms was not direct, but indirect through family support and conformity to parental expectations. Familism was related to life satisfaction directly, as well as indirectly through family support, but not through conformity to parental expectations. The results also showed that gender moderated the positive relationship between family support and life satisfaction, in that this relationship was greater for women than for men. The findings highlighted the protective role of family support in college-attending young adults' psychological well-being, particularly in female young adults' life satisfaction. Limitations and implications for families and helping professionals were discussed.

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Montclair, NJ

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The transition to college is a stressful and challenging experience (Arnett, 2015). As a result, a significant amount of college students suffer from decreased psychological functioning. For example, a recent report based on a large survey of 79,266 students at 140 colleges throughout the U.S. indicated that 12% of the participating students were diagnosed with or treated for depression, approximately 13% of them reported that depression had affected their academic performance, and about a third of them indicated that they felt so depressed that it was difficult to function in the prior 12 months (American College Health Association [ACHA], 2014). What is even more alarming is that nearly 10% of these college students have attempted or seriously considered suicide (ACHA, 2014). In fact, suicide has become the second-leading cause of death among college students, resulting in loss of 1,100 lives each year (Floyd, Mimms, & Yelding, 2007).

On the other hand, many college students are undergoing a transitional period to adulthood, as most of the high school students today attend college immediately after graduation (Arnett, 2015). From a developmental viewpoint, these young individuals are in the process of identity exploration and expected to fulfill important developmental tasks, such as developing independence and self-sufficiency and acquiring new skills in managing personal life (Arnett, 2015). In the meanwhile, they are encountering tremendous changes and challenges in many aspects of their lives, including education, employment, and/or relationships (family, friends, and/or intimate partners) (Arnett, 2000). Therefore, it is not surprising that many college-attending young adults experience a significant amount of stress on a daily basis and are at a higher risk of depression and suicide, as compared to older adults (Centers for Disease Control and Prevention, 2012;

Wight, Sepulveda, & Aneshensel, 2004).

Life satisfaction is an individual's subjective evaluation of overall quality of life, based on his or her own criteria (Diener, Emmons, Larson, & Griffin, 1985). Despite being a key indicator of individual well-being, life satisfaction has not received much attention in literature focusing on young adults' psychological well-being. Although limited, prior research has shown that high life satisfaction is associated with positive psychological, social, and behavioral outcomes, whereas low life satisfaction may result in depression and other psychological disorders (Proctor, Linley, & Maltby, 2009). In addition, Mahmoud, Staten, Hall, and Lennie (2012) have found that failure to meet individuals' developmental tasks may result in low life satisfaction. Therefore, in order to promote college-attending young adults' adjustment during this challenging transition period, it is important and urgent to identify risk and protective factors associated with their psychological well-being, such as depression and life satisfaction.

Familism is a cultural value orientation that emphasizes familial obligation, familial connectedness, familial reciprocity, and familial honor (Lugo Steidel & Contreras, 2003). Endorsing familism typically means prioritizing family's needs over one's own needs, keeping strong emotional and physical ties with the family, exchanging supports among family members, and honoring the family name (Lugo Steidel & Contreras, 2003). Familism creates support systems and strong ties with the family, which may help protect individuals against depression and promote life satisfaction (Schwartz et al., 2010). Although often considered a protective factor in research centering on Hispanic populations, familism has been found to be also applicable to other ethnic groups, including non-Hispanic Whites, African Americans, and Asian Americans

(Schwartz, 2007).

However, research is scant that examined the direct relationships of familism to individuals' psychological well-being, including depression and life satisfaction, and mixed findings have been documented, particularly on how familism is related to depression. For example, while some studies found that endorsing higher levels of familism was associated with more depressive symptoms observed (Kuhlberg, Peña, & Zayas, 2010; Lee, Dik, & Barbara, 2015; Schwartz et al., 2010; Ying & Han, 2007), other studies found that endorsing higher levels of familism was related to fewer depressive symptoms (Smokowski, Rose, & Bacallao, 2010; Zeiders et al., 2013). There are also studies that found no relationship between familism and depression (Campos, Ullman, Aguilera, & Schetter, 2014; Fuligni, Yip, & Tseng, 2002; Zeiders et al., 2013). In contrast, no study has examined how familism is directly related to life satisfaction.

In addition to its direct relationships, familism may be associated with psychological well-being indirectly, for example, through social support (Knight et al., 2002). Familism may help protect individuals against depression and enhance their well-being by creating support systems and strong ties with the family (Schwartz et al., 2010). The mediating role of family support has been documented in recent studies using young college students, suggesting that higher endorsement levels of familism are related to higher levels of perceived family support, which, in turn, are associated with fewer depressive symptoms and better psychological well-being (Campos et al., 2014; Lee et al., 2015). In a similar vein, family support might also mediate the relationship between familism and life satisfaction, as prior research has found a positive association between

family support and life satisfaction (Paterson & Hakim-Larson, 2012; Sheets & Mohr, 2009; Suldo & Huebner, 2004; Young, Miller, Norton, & Hill, 1995).

Conformity to parental expectations is another factor that may possibly mediate the relationship between familism and psychological well-being. Conformity to parental expectations refers to children's compliance with parents' expectations in their daily behavior and decision-making. Research has suggested that children's endorsement levels of familism are associated with their conformity to parental expectations. With higher levels of familism, children may be compelled by filial piety to behave according to their parents' expectations. For example, in their sample of ethnic minority adolescents, Ghazarian, Supple, and Plunkett (2008) found that familism endorsement was positively related to conformity to parental wishes.

However, in terms of the relationship between conformity to parental expectations and psychological well-being, there has been no research that examines such a relationship. Despite the dearth, there were a few studies examining the effect of family conformity orientation (i.e., a family climate that emphasizes conformity among family members) on children's psychological well-being. However, the results were mixed. Specifically, while some found that family conformity orientation was positively related to young adult children's depression (Hamon & Schrodt, 2012; Schrodt, Ledbetter, & Ohrt, 2007), others suggested that the relationship was negative among adolescents (Koerner & Fitzpatrick, 1997). In addition, some findings from authoritative parenting research may foster our understanding of the association between conformity to parental expectations and children's psychological well-being, as they suggested that psychological autonomy granting was beneficial to children's psychological well-being.

For example, research found that children tended to manifest fewer depressive symptoms and indicate higher levels of life satisfaction when they were granted by parents more psychological freedom and encouraged to express their individuality (Gray & Steinberg, 1999; Suldo & Huebner, 2004).

Little is known regarding the role that gender might play in the relationships between familism and psychological well-being. For example, would gender moderate the relationships? Prior research has shown some evidence on gender difference in the relationship between behaviors prompted by family obligation, such as family assistance, and psychological well-being. For instance, Telzer and Fuligni (2009) found that providing family assistance was associated with higher levels of happiness for adolescent boys, but not for adolescent girls. This finding implies that familism, which promotes family assistance, might also have different psychological implications for different gender. Research has also suggested that females show different patterns in both perceiving and responding to social support than males during adolescence and young adulthood. For example, women overall report higher family support and benefit more psychologically from family support (Adamczyk, 2015; Sifers, 2011). Familism may be especially beneficial for women's psychological well-being, as it promotes family support (Campos et al., 2014). Therefore, it is reasonable to speculate that the indirect relationship between familism and psychological well-being through family support may vary by gender. Previous studies have found that the association between familism and family relationships differs by gender. Girls endorsing familism were more likely to have lower family conflict and higher family cohesion than boys (Lorenzo-Blanco, Unger, Ritt-Olson, Soto, & Baezconde-Garbanati, 2013). Since conformity is an important aspect

of parent-child relationship, whether the indirect relationships of familism to psychological well-being through conformity to parental expectations might vary by gender is worth further exploration.

In summary, the purpose of this study is to examine the relationships between familism and psychological well-being. Specifically, using a large and ethnically diverse sample of college-attending young adults, this study investigates whether endorsing familism is related to depressive symptoms and life satisfaction directly, as well as indirectly through family support and conformity to parental expectations. In other words, the mediating roles of family support and conformity to parental expectations are examined. The current study also explores a potential moderating role of gender in the associations between familism and psychological well-being.

Literature Review

Theoretical Frameworks

Ecological systems theory provides a useful framework for explaining the interconnectivity among multiple levels of environmental systems and their impacts on individual development and well-being (Bronfenbrenner, 1979, 1986). Given its emphasis on contextual and transitional factors, the ecological perspective is relevant in the study of developmental outcomes of college-attending young adults, who are expected to undergo a series of life transition. Specifically, during the transitional period, these young individuals may interact with multiple environmental settings, such as family (a micro-system) and cultural values (a macro-system), and thus develop their own value and belief systems (Arnett, 2015). The environmental influences, such as cultural values on the family, are internalized on these individuals and may ultimately determine the

extent to which they endorse family values, such as familism. As a result, their endorsement levels of familism may help shape their perceptions of the family and their relationships with other family members, which, in turn, may have impacts on their psychological well-being.

The life course perspective is another theoretical framework that can be used to guide the current study, as it takes into account age-related transitions that influence individual development across the life span (Aldous, 1990). Life transitions, such as entering schools, have distinctive meaning in the trajectories of human development (Elder, 1998). Among them, the transition from high school to college is one of the most crucial life transitions. Many young adults in this transitional period are becoming more independent as they leave parental homes and move on to attend colleges. This may result in changes in their relationships with parents. For example, their relationships with parents might become less close as they gain more autonomy (Bucx & Wel, 2008). However, recent research has shown that having a good and stable relationship with parents remains important for young adults as it may benefit their own well-being (Lee et al., 2015; Wel, Bogt, & Raaijmakers, 2002). In addition, young adults are in the process of identity explorations, including ideology (values and beliefs) and interpersonal relations (Marcia, 1966). During this period, they re-examine and form their values and beliefs about the family and their views of family relations (Arnett, 2015). The life course perspective suggests that young adults' experiences in this transitional period have profound impacts on their development. Given the important, albeit changing, role of family in young adults' lives during this transition period, it is important to examine how their views and beliefs about the family (i.e., familism) and family relations (i.e.,

perceived family support and conformity to parental expectations) are associated with their personal well-being.

Familism and Psychological Well-Being

Familism and depression. Some studies have examined the direct relationship between familism and depression in adolescents and young adults. But the findings are mixed regarding whether this relationship exists and how they are related. Longitudinal studies on Hispanic background adolescents in general found that familism was negatively related to depression. For example, Zeiders et al. (2013) found that higher levels of supportive and referent familism values were associated with fewer depressive symptoms over an 8-year span in Mexican-origin adolescents. Smokowski et al. (2010) reported a similar finding, in that familism was related to fewer internalizing symptoms over time in Latino adolescents.

Contradictory to the above findings, however, a number of cross-sectional studies reported a *positive* relationship between familism and depression. Research based on ethnically diverse samples of college students found that endorsing familism was related to higher levels of psychological distress, such as more depressive symptoms and higher anxiety (Lee et al., 2015; Schwartz et al., 2010). Kuhlberg et al.'s (2010) study sampling Latino adolescents (50% being suicide attempters) showed that familism was associated with higher levels of internalizing behaviors, such as depression and anxiety. Ying and Han (2007) also found that higher levels of familism predicted greater depression in Asian-American adolescent refugees.

There are also studies finding no direct relationship between familism and depression. For example, Campos et al.'s (2014) study, based on a large, ethnically

diverse sample of college students, did not find a direct relationship between familism and psychological health, including depressive symptoms. Zeiders et al. (2013) found that obligation familism value was not related to depressive symptoms in Mexican-origin adolescents. Fuligni et al. (2002) reported that Chinese immigrant adolescents' involvement levels in family obligations were not associated with their psychological distress, measured by depressive feelings and anxiety.

Familism and life satisfaction. Little effort has been made to examine whether there is a direct relationship between familism and life satisfaction among young adults. One relevant study was conducted by Schwartz et al. (2010), who examined how collectivistic values, including familism, communalism, and filial piety, were related to positive psychological functioning, including life satisfaction, in a large sample of ethnically diverse college students. Although they found positive relationships between collectivistic values and psychological functioning, life satisfaction was not measured as an independent construct. Instead, it was grouped into the concept of positive psychological functioning with four other forms of individual well-being, particularly self-esteem, meaning in life, psychological well-being, and eudaimonic well-being.

It is worth noting that there were studies suggesting that family-related values had positive effects on adolescents' and young adults' psychological well-being, although the family-related values measured in those studies were not familism. For instance, in Fuligni and Pedersen's (2002) study, a strong sense of obligation to support, respect, and assist family was found to predict better emotional well-being in young adults. Telzer and Fuligni (2009) found that family assistance prompted by family obligation value was associated with positive psychological well-being and higher levels of happiness in

adolescents, because it provided a sense of role fulfillment and social connection to the family.

Family support as mediator. Two recent studies, both based on ethnically diverse samples of young adult college students, have provided empirical evidences for family support as a mediator between familism and psychological well-being. Lee et al. (2015) found that familism was positively related to perceived family support, which, in turn, was negatively associated with depressive symptoms. Campos et al.'s (2014) study suggested that familism contributed to psychological well-being by facilitating family support; that is, higher familism predicted more family support, which, in turn, was related to fewer depressive symptoms. However, no study has tested the mediating role of family support in the relationship between family support and life satisfaction.

Other empirical studies have also documented the relationships either between familism and family support or between family support and psychological well-being, such as depression and life satisfaction. For example, Campos et al. (2008) reported that familism was positively associated with perceived social supports from family and friends in Latina and European American pregnant women. Niemeyer, Wong, and Westerhaus' (2009) study on Hispanic and Caucasian adolescents found that those who endorsed familism were more likely to perceive higher parental involvement in their schoolwork. Sheets and Mohr (2009) found that perceived family support was negatively related to depression and positively related to life satisfaction in bisexual young adult college students. Studies focusing on female Mexican-American college students also found a negative relationship between perceived family support and psychological distress (Castillo, Conoley, & Brossart, 2004; Castillo & Hill, 2004). Paterson and

Hakim-Larson's (2012) study, based on Canadian Arab youth, suggested that perceived social support from family was positively associated with life satisfaction in family domain.

It is worth noting that some studies have focused on parental support, rather than family support, and the results indicated similar direct relationship between parental support and psychological well-being among adolescents and young adults. For example, Holahan, Valentiner, and Moos' (1994) longitudinal study, based on ethnically diverse college students, found that parental support was negatively related to distress observed by depression and anxiety, and positively related to psychological well-being measured by happiness and general self-worth. Higher levels of parental support were found to predict lower levels of depression in U.S. college students (Mounts, 2004) and Israeli young adults (Shulman, Kalnitzki, & Shahar, 2009). Studies based on ethnic diverse adolescents suggested that perceived support from parents was positively associated with life satisfaction (Suldo & Huebner, 2004; Young et al., 1995).

Conformity to parental expectations as mediator. In addition to family support, conformity to parental expectations may also mediate the relationship between familism and psychological well-being. Research has suggested that children's endorsement of familism may have impacts on parent-child relationships, such as higher conformity to parents and lower parent-child conflicts. For example, Ghazarian et al.'s (2008) study found that Armenian American adolescents' attitude toward familism had influences on their relationships with parents. Those who endorsed higher levels of familism were more likely to conform to parents' wishes and respect parents' authority. Longitudinal and cross-sectional studies on Latina and Hispanic adolescents suggested that children's

familism endorsement was linked to lower levels of parent-child conflict (Kuhlberg et al., 2010; Lorenzo-Blanco et al., 2013).

However, research is in general unavailable regarding how children's conformity to parental expectations is related to their psychological well-being. Despite the paucity, there were some studies focusing on concepts related to conformity to parental expectations, such as family communication pattern with conformity orientation and psychological autonomy granting. Findings from those studies have a potential to help us understand the association between conformity to parental expectations and children's psychological well-being, and are briefly reviewed below.

The research findings are mixed in terms of how family communication pattern with conformity orientation is related to children's psychological well-being. Family communication pattern with conformity orientation refers to a family climate that emphasizes homogeneity of values, attitudes, and beliefs among family members (Koerner & Fitzpatrick, 1997). While some studies with young adult college student samples suggested that family communication with conformity orientation was positively related to children's depressive symptoms (Hamon & Schrod, 2012; Schrod et al., 2007), a study based on adolescents and their parents found that family conformity orientation was negatively related to the averaged levels of depression of children and their parents, as it promoted coping strategies such as avoiding family conflicts and venting negative feelings (Koerner & Fitzpatrick, 1997). The inconsistency appearing in these findings might be due to the different age groups between the study samples and how depression was measured.

Research has suggested that psychological autonomy granting from parents overall has positive effects on children's psychological well-being. Psychological autonomy granting refers to authoritative parenting practices that allow children to have higher degrees of emotional freedom and encourage them to express their individuality (Gray & Steinberg, 1999; Suldo & Huebner, 2004). When parents grant their adolescent children with higher psychological autonomy, the children tended to show fewer depressive symptoms (Gray & Steinberg, 1999) and higher levels of life satisfaction (Suldo & Huebner, 2004).

Gender difference. Very few studies have examined the gender differences (i.e., gender as a moderator) in the direct relationship between familism and psychological well-being, such as between familism and depressive symptoms (Zeiders et al., 2013). However, no studies have found evidence for such a gender moderation effect. In addition, there were only two studies that examined whether gender moderated the association between family support and psychological well-being (Sheets & Mohr, 2009; Young et al., 1995), but neither of them found gender moderation effect. Nevertheless, two studies found gender as a moderator in the relationships between familism-associated behaviors and psychological well-being, and between familism and family relationships. Specifically, Telzer and Fuligni (2009) found a positive relationship between providing family assistance and happiness in boys, but not in girls. Lorenzo-Blanco et al. (2013) found that the negative association between familism and family conflict was greater for girls than for boys. Apparently, whether gender moderates the direct association between familism and psychological well-being and the indirect relationship through family

support and conformity to parental expectations remains inconclusive and therefore warrants exploration.

Limitations in prior studies. Having thoroughly reviewed the relevant literature, several limitations have emerged and are noted here. First, the majority of familism literature was based on ethnic minority samples, especially from the Hispanic populations. Since research has found that familism is applicable across different ethnic groups (Schwartz, 2007), more studies need to be done using ethnically diverse samples to replicate prior research. Similar findings would increase the generalizability of the current research. Second, very few studies have examined the direct relationship between familism and life satisfaction. Third, although there are relatively more studies on how familism is directly related to depression, in contrast with life satisfaction, the findings were inconsistent. Fourth, the indirect effects of familism on psychological well-being need to be further investigated. For example, although prior research has shown that family support is a mediator in the association between familism and depression, whether it might also mediate the relationship between familism and life satisfaction remains unclear. In a similar vein, the mediating role of conformity to parental expectations in the relationship between familism and psychological well-being virtually has not been explored. While research has found that familism is positively associated with conformity to parental expectations (Ghazarian et al., 2008), it remains unclear whether such conformity would influence individuals' psychological well-being, thereby warranting further investigation. Finally, little work has been done to examine potential moderating effects of gender in the associations between familism and psychological well-being, requiring further exploration to help advance our understanding of the gender differences.

Guided by the ecological theory and the life course theory, and based on the prior research reviewed above (see Appendix for details), the research hypotheses are as follows (see Figure 1).

1. Familism is directly related to depressive symptoms and life satisfaction.
2. Perceived support from family and conformity to parental expectations each mediates the relationships between familism and depressive symptoms, and between familism and life satisfaction.

In addition, this study explores the moderating role of gender in the proposed mediating relationships.

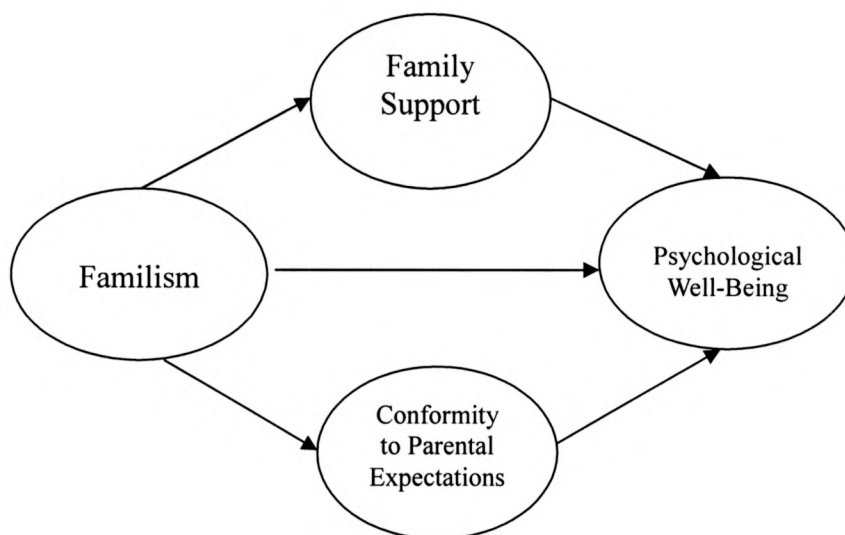


Figure 1. Conceptual Model

Method

Participants

Six hundred thirty six undergraduate students from a mid-sized public university in the Northeast region of the United States participated in the current study. The majority of the sample was women (79.5%), with age ranging from 18 to 25 years old ($M = 19.9$; $SD = 1.5$). In terms of school year, 33.8% of participants were freshmen, 23.8% sophomore, 26.3% junior, 15.7% senior, and .3% unknown. With regards to ethnicity, 52% of participants self-identified as White, 21.7% as Hispanic, 13.7% as Black or African-American, 3.8% as Asian-American, 6.8% as multiracial, and 2% as other. The sample was representative of the range and proportions of the ethnicities in the campus where the study was conducted.

Procedure

The data used in the current study is from a larger research project aimed to investigate college students' personal development and psychosocial adjustment. The data collection process is briefly described as follows. Upon approval of the university's Institutional Review Board (IRB), full-time undergraduate students were recruited for research participation via emails, flyers, and personal networks. The study was conducted in various locations on campus, including classrooms, conference rooms, and the student center. The participants were asked to sign a consent form before completing a survey, which consisted of demographic questions and several psychometric scales assessing the participants' family value, family relationships, and psychosocial adjustment. No personal identification information was collected in the survey. A compensation of \$5 was given to the participant upon completion of the survey.

Measures

Familism. Familism refers to the value that emphasizes family obligations and bonds, mutual family supports, respecting family members, and prioritizing family over individual (Schwartz, 2007; Schwartz et al., 2010). It was measured by Lugo Steidel and Contreras' (2003) Attitudinal Familism Scale that consisted of 18 items assessing the respondents' attitude toward familial bonds, supports, obligations, and honor. Participants were asked to indicate to which extent they agreed with each statement using a 5-point scale (1 = *strongly disagree*, 5 = *strongly agree*). Sample items included "A person should rely on his or her family if the need arises," and "Children should live with their parents until they get married." Mean scores of the scale were calculated, with higher score indicating higher levels of familism endorsement. Lugo Steidel and Contreras (2003) reported a coefficient alpha of .83 for the scale indicating adequate reliability, and good construct validity by its positive correlation with Latino orientation and negative correlation with Anglo orientation. Evidence was found when using the scale with non-Hispanic ethnic groups, including non-Hispanic White/Black, and East/South/Middle-Eastern Asian (Schwartz, 2007; Schwartz et al., 2010). Cronbach's α for the current study was .92.

Depressive symptoms. Depressive symptoms were measured by Radloff's (1977) Center for Epidemiologic Studies-Depression (CES-D) Scale, which is a widely used scale designed to screen for depressive symptoms in nonclinical populations. Respondents answered how often they might have felt or behaved in each of the 20 ways listed during the past week using a 4-point scale (1 = *rarely or none of the time*, 4 = *most or all of the time*). Sample items included "I felt depressed," and "I felt sad." Mean scores of the 20 items were calculated, with higher scores indicating more depressive symptoms. Radloff (1977) reported

a coefficient alpha of .85 for the scale on nonclinical samples, and good convergent validity by its positive correlations with other depression scales, such as the SCL-90. Cronbach's α for this study was .90.

Life satisfaction. Life satisfaction refers to the cognitive and judgmental process to evaluate one's quality of life based on his/her own criteria, and was measured by the Satisfaction with Life Scale (SWLS; Diener et al., 1985). Participants were asked to indicate to which degree they agreed with each of the 5 items using a 7-point scale (1 = *strongly disagree*, 7 = *strongly agree*). Sample items included "The conditions of my life are excellent," and "I am satisfied with my life." Mean scores of the 5 items were used, with higher scores indicating higher levels of life satisfaction. Diener et al. (1985) reported a coefficient alpha of .87, and a two-month test-retest reliability of .82 for the scale, based on their study using university students. The scale's construct validity was supported by its correlations with certain personality characteristics, such as self-esteem, neuroticism, emotionality, and sociability, as well as with other measures of subjective well-being (see details in Diener et al., 1985). Cronbach's α for this study was .89.

Family support. The perceived level of support from family was measured by the 4-item family support subscale in the Multidimensional Scale of Perceived Social Support (MSPSS; Zimet, Dahlem, Zimet, & Farley, 1988). Participants were asked to indicate their levels of agreement with statements such as "My family really tries to help me," and "I can talk about my problems with my family," using a 7-point scale (1 = *strongly disagree*, 7 = *strongly agree*). Mean scores of the 4 items were calculated, with higher scores indicating perceiving higher levels of family support. The family support subscale's coefficient alpha was .87, and test-retest reliability over a two to three months

interval was .85, both reported in Zimet et al. (1988). The scale's validity was supported by its negative correlations with depression and anxiety (Zimet et al., 1988). Cronbach's α for the current sample was .92.

Conformity to parental expectations. Conformity to parental expectations was measured by one of the three subscales from the Parent Behavior Measure (PBM; Peterson, Cobas, Bush, Supple, & Wilson, 2004), which evaluated respondents' levels of collectivistic orientations. Participants were asked to rate nine statements on a 4-point Likert scale (1 = *strongly disagree*; 4 = *strongly agree*) for their mothers and fathers separately. A sample item was "If my mother/father did not want me to go to a particular movie, then I believe that I would not go." Mean scores were used, with higher scores reflecting higher levels of conformity to parental expectations. Cronbach's α s for mothers and fathers were .82 and .84, respectively, for the current study.

Analytical Strategy

PROCESS (Hayes, 2013) was employed to test the proposed multiple mediation model (Figure 1) and the moderated mediation model for the gender moderation effects. The analyses were done for each outcome variable separately (i.e., depressive symptoms and life satisfaction). Multiple mediator models test all possible direct and indirect effects concurrently, and allow us to detect the effect of a specific mediator controlling for other mediators. PROCESS is a newly developed statistical tool to test path analysis-based mediation using a regression-based analytic approach. It uses OLS regression to estimate unstandardized model coefficients, standard errors, t and p -values, and confidence intervals (CIs) for continuous outcomes. It uses bootstrapping to generate indirect effects, which is a more accurate approach to estimate standard errors and CIs for the significance

levels of the indirect effects (Preacher & Hayes, 2008), as it overcomes the normality assumption required in other mediation tests, such as the Sobel test (Sobel, 1982). In this study, the indirect effects were tested with 10,000 bootstrap samples and a bias-corrected 95% bootstrap CI. The indirect effect is statistically significant when the CI does not contain zero.

The proposed multiple mediator models hypothesized the relationships among familism, family support, conformity to parental expectations, and psychological well-being (i.e., depressive symptoms and life satisfaction). Specifically, the analyses examined (a) whether young adults' endorsement levels of familism had a direct relationship with their psychological well-being, and (b) whether young adults' endorsement levels of familism were indirectly associated with their psychological well-being through perceived family support and conformity to parental expectations. In addition, the current study explored whether gender moderated the direct relationship between familism and psychological well-being, as well as the indirect relationships through family support and conformity to parental expectations (i.e., the moderated mediation effects).

Ethnicity and living arrangement were controlled (i.e., included as covariates) in the analysis of the multiple mediation model between familism and depressive symptoms, and gender, ethnicity, and parents' marital status were controlled in the analysis of the multiple mediation model between familism and life satisfaction, given that these controlling variables were correlated with the outcome variables in the current study, which might confound the associations of interests. Table 1 presents the correlation matrix with means and standard deviations for the predictor, mediator, moderator, and

criterion variables in the study.

Results

Figure 2 and Table 2 present the test results of the multiple mediation model between familism and depressive symptoms. In terms of the hypothesized direct effect (c') between familism and depressive symptoms, the results showed that there was no direct relationship between familism and depressive symptoms. With regard to the hypothesized indirect effects (ab), the results showed that both family support and conformity to parental expectations mediated the relationship between familism and depressive symptoms. Specifically, familism was positively related to family support, which, in turn, was negatively related to depressive symptoms ($a_1b_1 = -.13$, 95% CI $[-.18, -.09]$). Familism was also positively related to conformity to parental expectations, which, in turn, was positively related to depressive symptoms ($a_2b_2 = .05$, 95% CI $[.01, .09]$). Gender was not found to moderate any of the mediated relationships between familism and depressive symptoms hypothesized.

Figure 3 and Table 3 present the test results of the multiple mediation model between familism and life satisfaction. In terms of the hypothesized direct effect (c') between familism and life satisfaction, the results showed that there was a direct, positive relationship between familism and life satisfaction ($B = .20$, $SE = .10$, $t = 2.04$, $p = .04$), meaning that higher levels of familism endorsement were associated with higher levels of life satisfaction. With regard to the hypothesized indirect effects (ab), the results showed that only family support mediated the relationship between familism and life satisfaction. Specifically, familism was positively related to family support, which, in turn, was

Table 1

Means, Standard Deviations (SDs), and Intercorrelations among Study Variables (N = 636)

	1.	2.	3.	4.	5.	6.
1. Gender	—					
2. Familism	.08*	—				
3. Conformity to parental expectations	-.04	.43***	—			
4. Family support	.21***	.32***	.29***	—		
5. Depressive symptoms	-.01	-.02	.01	-.31***	—	
6. Life satisfaction	.08	.22***	.17***	.48***	-.47***	—
<i>M</i>	1.80	3.66	2.18	5.71	1.84	4.96
<i>SD</i>	.40	.51	.54	1.34	.57	1.24

Note. Gender (1 = male, 2 = female).

* $p < .05$. *** $p < .001$.

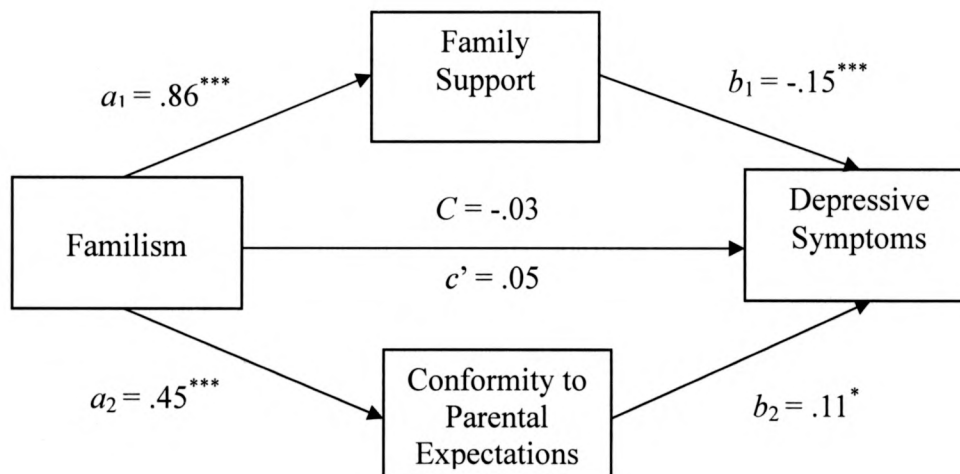


Figure 2. Results for the Multiple Mediator Model between Familism and Depressive Symptoms

* $p < .05$. *** $p < .001$.

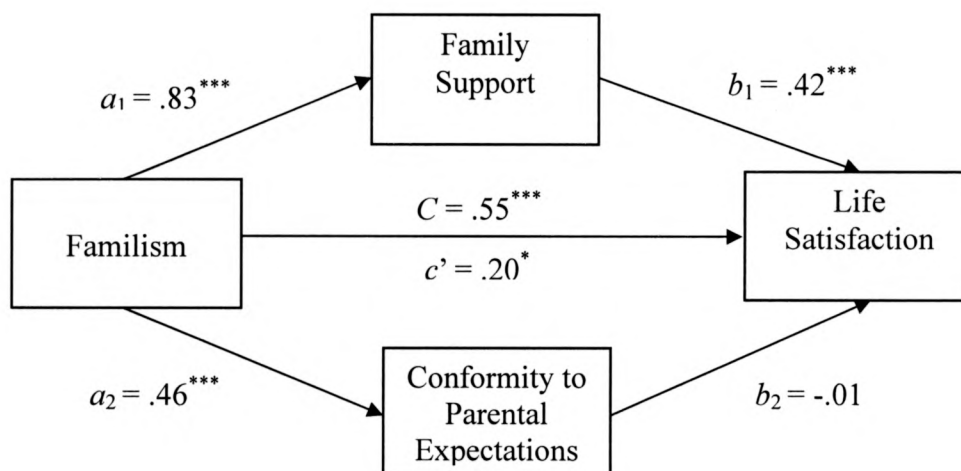


Figure 3. Results for the Multiple Mediator Model between Familism and Life Satisfaction

* $p < .05$. *** $p < .001$.

Table 2

Multiple Mediation Results for Familism (IV) and Depressive Symptoms (DV)

Dependent Variable	Path/Effect	B	SE	t	Bias-Corrected 95% Bootstrap CI
Depressive Symptoms (DS)	C				
		-.03	.05	-.63	
a_1 (Familism \rightarrow Family Support)		.86	.10	8.68***	
a_2 (Familism \rightarrow Conformity)		.45	.04	11.52***	
b_1 (Family Support \rightarrow DS)		-.15	.02	-8.62***	
b_2 (Conformity \rightarrow DS)		.11	.04	2.36*	
c'		.05	.05	1.13	
$a_1 \times b_1$		-.13	.02		[-.18, -.09]
$a_2 \times b_2$.05	.02		[.01, .09]
Total		-.08	.03		[-.14, -.03]

Note. Participants' ethnicity and living arrangement were included as covariates in the analysis. C = total effect of independent

variable (IV) on dependent variable (DV); a = direct effect of IV on mediator; b = direct effect of mediator on DV; c' = direct effect of

IV on DV; $a \times b$ = indirect effect of IV on DV through mediator; CI = confidence interval.

* $p < .05$. *** $p < .001$.

Table 3

Multiple Mediation Results for Familism (IV) and Life Satisfaction (DV)

Dependent Variable	Path/Effect	B	SE	t	Bias-Corrected 95% Bootstrap CI
Life Satisfaction (LS)	C	.55	.10	5.70***	
	a_1 (Familism \rightarrow Family Support)	.83	.10	8.43***	
	a_2 (Familism \rightarrow Conformity)	.46	.04	12.06***	
	b_1 (Family Support \rightarrow LS)	.42	.04	11.59***	
	b_2 (Conformity \rightarrow LS)	-.01	.09	-.08	
	c'	.20	.10	2.04*	[.25, .46]
	$a_1 \times b_1$.35	.05		[-.09, .08]
	$a_2 \times b_2$	-.003	.04		[.23, .48]
	Total	.34	.06		

Note. Participants' gender, ethnicity, and parents' marital status were included as covariates in the analysis. C = total effect of independent variable (IV) on dependent variable (DV); a = direct effect of IV on mediator; b = direct effect of mediator on DV; c' = direct effect of IV on DV; $a \times b$ = indirect effect of IV on DV through mediator; CI = confidence interval.

* $p < .05$. *** $p < .001$.

positively related to life satisfaction ($a_1b_1 = .35$, 95% CI [.25, .46]). Gender was found to moderate the relationship between family support and life satisfaction ($B = .17$, $SE = .08$, $t = 2.00$, $p = .046$, 95% CI [.003, .33]). The results are presented in Table 4. To interpret how gender moderated the mediated relationships among familism, family support, and life satisfaction, analysis of the multiple mediation model was conducted for male and female participants separately. The results showed that the positive relationship between family support and life satisfaction was greater in female ($B = .46$, $SE = .04$, $t = 11.08$, $p < .001$) than in male ($B = .28$, $SE = .08$, $t = 3.74$, $p < .001$) young adults (see Figures 4 and 5).

Table 4

Results for Gender Moderating the Relationships between Familism and Life Satisfaction

Variable	<i>B</i>	<i>SE</i>	<i>t</i>	95% CI
Ethnicity	.04	.04	.92	[-.04, .11]
Parents' Marital Status	-.04	.03	-1.13	[-.10, .03]
Familism	.69	.48	1.42	[-.26, 1.63]
Family Support (FS)	.13	.15	.87	[-.16, .42]
Conformity	-.32	.37	-.86	[-1.05, .41]
Gender	-.39	.83	-.48	[-2.02, 1.23]
Familism \times Gender	-.27	.26	-1.03	[-.78, .24]
FS \times Gender	.17	.08	2.00*	[.003, .33]
Conformity \times Gender	.17	.21	.84	[-.24, .58]

Note: Conformity = Conformity to parental expectations.

* $p < .05$.

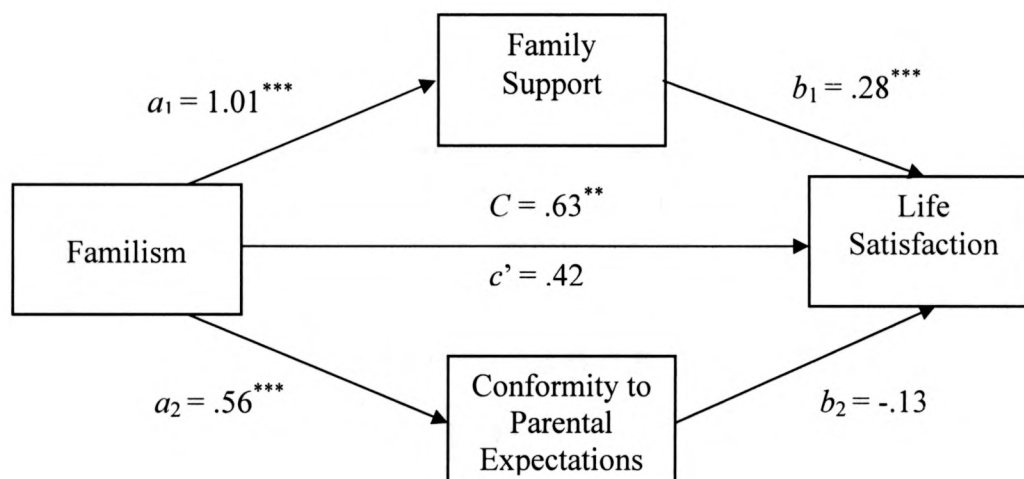


Figure 4. Results for the Multiple Mediator Model between Familism and Life Satisfaction for Men

** $p < .01$. *** $p < .001$.

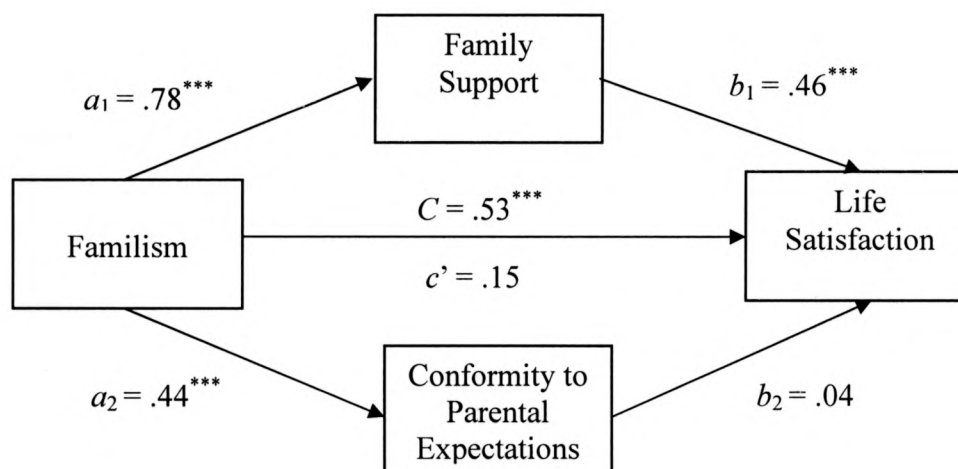


Figure 5. Results for the Multiple Mediator Model between Familism and Life Satisfaction for Women

*** $p < .001$.

Discussion

This study examined both direct and indirect relationships between familism and psychological well-being in college-attending young adults using multiple mediation models, which allow multiple mediators to be examined concurrently (Hayes, 2013). Gender effects were also examined in the hypothesized associations of mediation. The results partially supported the hypotheses.

As hypothesized, familism was directly related to life satisfaction; family support and conformity to parental expectations each mediated the relationship between familism and depressive symptoms; family support also mediated the relationship between familism and life satisfaction. Contrary to the hypotheses, however, familism was not directly related to depressive symptoms; conformity to parental expectations did not mediate the relationship between familism and life satisfaction. Gender difference was only found in the relationship between family support and life satisfaction. Overall, the results suggest that familism is associated with psychological well-being directly and indirectly through more than one means, which helps advance our knowledge on how family continues to influence college-attending young adults' psychological well-being (Lee et al., 2015).

The current study fills the gap in the literature by examining the direct and indirect relationships between familism and life satisfaction. A direct, positive relationship between familism and life satisfaction was found in the study, suggesting that a strong sense of connection with the family is beneficial to college-attending young adults' evaluation of their overall quality of life. This is in line with the prior research indicating that collectivistic values, including familism, contribute to individuals' positive

psychological functioning, including increased life satisfaction (Schwartz et al., 2010). The indirect relationship between familism and life satisfaction through family support found in the study suggests that endorsing higher levels of familism may promote young adults' life satisfaction by perceiving higher levels of support from the family (Schwartz et al., 2010).

This study is also the first to examine conformity to parental expectations as a mediator in the relationship between familism and psychological well-being. Specifically, conformity to parental expectations was found to mediate the association between familism and depressive symptoms, suggesting that young adults who endorse higher levels of familism tend to show higher levels of conformity to parents' expectations, which is related to more depressive symptoms. Familism and associated filial piety may prompt young individuals to conform to their parents even if they have different opinions. Given that the U.S. society is dominated by a highly individualistic value, familism as a collectivistic value orientation is incompatible with the current norm. As a result, those young adults who endorse familism may be at risk for emotional distress, as shown by more depressive symptoms (Schwartz et al., 2010). This finding provides additional support to prior research suggesting that children are more likely to experience depression when they are expected to accept their parents' opinions and beliefs, and that parents' psychological autonomy granting is protective against children's depressive symptoms (Gray & Steinberg, 1999). However, not as expected, conformity to parental expectations did not mediate the relationship between familism and life satisfaction. This suggests that although conforming to parents prompted by familism is associated with more depressive symptoms, it does not affect college-attending young adults' overall

satisfaction with life.

The findings reveal the important role of family support in college-attending young adults' psychological well-being by showing that family support mediated the relationships between familism and both indicators of psychological well-being – depressive symptoms and life satisfaction. Higher levels of familism endorsement were related to higher levels of perceived family support, which, in turn, were related to fewer depressive symptoms and higher levels of life satisfaction. This pattern suggests that familism contributes to psychological well-being by promoting family support, echoing the results from prior studies (Campos et al., 2014; Lee et al., 2015). The findings also reaffirm the protective role of family support in young adults' psychological well-being, which has been repeatedly documented in previous research (Castillo et al., 2004; Castillo & Hill, 2004; Sheets & Mohr, 2009).

Unexpectedly, the results did not show that familism was directly related to depressive symptoms. Familism was related to depressive symptoms only indirectly through family support and conformity to parental expectations. This means familism alone does not have a direct impact on depressive symptoms. Its association with depressive symptoms is only through certain mediators, such as family support and conformity to parental expectations. This pattern is consistent with Campos et al.'s (2014) finding, which suggested that familism was not directly related to psychological health and only indirectly related to it through family support. Perhaps there are suppression effects between familism and depressive symptoms. Specifically, while contributing to fewer depressive symptoms through facilitating family support, familism is related to more depressive symptoms through promoting conformity to parental expectations. These

two opposite means suppress each other, and thereby reduce the total effect of familism on depressive symptoms (Rucker, Preacher, Tormala, & Petty, 2011). This may help explain the mixed findings in the literature regarding the relationship between familism and psychological well-being (e.g., Campos et al., 2014; Lee et al., 2015; Zeiders et al., 2013).

The current study also contributes to the understanding of gender difference in the association between family support and life satisfaction. The findings showed that the positive relationship between family support and life satisfaction was greater for female young adults than for their male counterparts. In other words, despite the positive relationship for both genders, perceiving higher levels of family support was more positively related to life satisfaction for women than for men. This result is consistent with prior research suggesting that women tend to benefit more from family support than men (Sifers, 2011). Since women are usually more relation-oriented and more mentally responsive to the quality of family relationship (Kiecolt-Glaser & Newton, 2001), the current study suggests that endorsing familism may be especially beneficial to young adult women's psychological well-being, particularly life satisfaction, as it likely helps promote the quality of family relationships, for example, family support.

Limitations

Despite the strengths of this study, several limitations should be noted. First, data were all based on participants' self reports, which may have contributed to greater associations among the study variables due to shared method variance. Second, the cross-sectional design of this study made it impossible to infer any causal effects. It will be important for future research to employ a longitudinal design in order to provide stronger

evidence of the directionality in the relationships proposed in the current study. Third, the current study only examined the mediation effects of two factors – family support and conformity to parental expectations. Given the diverse implications that familism might have on family relationships, it is likely that there are other factors that may also mediate the association between familism and psychological well-being. Future research should explore the mediation effects generated by other possible factors. Finally, the ethnically diverse sample used in this study reflected the demographic feature of the geographic location where the study was conducted. Given the geographic variation in ethnicity compositions across the country, it is still not clear whether the results from this study can be generalized to young adults in other locations, such as the Midwest and South regions of the United States. In addition, the study sample consisted of only college students. Thus, it remains unclear whether the results can be generalized to young adults who do not attend college. Despite the fact that most high school graduates today attend college, there are still many young people who do not go to college (Arnett, 2015). Research has found that these young adults are different from their college-attending peers in terms of demographic, socioeconomic, and psychosocial characteristics (Halperin, 2001), and are underrepresented in research (Arnett, 2015). Future research should recruit participants from this understudied population of non-college-attending young adults to examine the associations proposed in the current study.

Implications for Families and Helping Professionals

The findings from the current study provide research support for families, especially parents, and helping professionals who work with young college students and/or their families, such as college counselors and advisors, social workers,

psychologists, and family practitioners. Young adults are undergoing a transition period filled with many challenges and uncertainty (Arnett, 2015). For those attending college, this period can be even more stressful as they try to acquire a college degree, while accomplishing critical developmental tasks at the same time. Although these young individuals are expected to gain more autonomy and become more independent during this transition period, findings of this study reaffirm the importance of their families, especially parents, as a major source of support to benefit their psychological well-being (Adams, Ryan, & Keating, 2000; Lee et al., 2015; Wel et al., 2002). Therefore, it is very important for families or parents to continue providing strong support for young college students, especially female students, in order to promote their life satisfaction and protect them against depression.

However, it is worth noting that although parents' support and involvement is generally beneficial to young college students' well-being, findings of this study have suggested that conforming to parents' expectations is associated with adverse psychological outcomes by displaying more depressive symptoms. This provides useful implications for parenting. Research has documented the negative effects of over-controlling and intrusive parenting on children's developmental outcomes. Over-controlling parenting (e.g. helicopter parenting) is associated with higher levels of depression and lower levels of life satisfaction among college students, because this type of parenting is not developmentally appropriate and is in conflict with children's psychological needs of autonomy (Schiffrin et al., 2014). Intrusive parenting (i.e. parents' excessive jurisdiction over children's daily activities) is related to children's problems in peer relations (Goldstein, Davis-Kean, & Eccles, 2005). Therefore, parents might be

encouraged to be more flexible in their expectations of young adult children by giving them room to explore their personal interests and careers, even when they are not in accordance with parents' desires for the children. Although conformity to parental expectations may be reasonably expected and beneficial to young children (Gamble & Modry-Mandell, 2008), it is important to allow young adults room to explore their own ideas.

The results from this study have demonstrated the relationships among familism, family support, and psychological well-being, particularly depressive symptoms and life satisfaction, among college-attending young adults. Although individualistic values are encouraged in many higher education institutions in the U.S., research has shown that putting strong emphasis on individualistic values may actually place potential barriers to students' psychological well-being (Castillo et al., 2004). Family-oriented values (e.g., familism) and resources from the family (e.g., family support), therefore, should not be overlooked in higher education settings. Instead, they should be recognized as protective factors for young adult college students' psychological well-being that promote their healthy development (Adams et al., 2000). It is important for helping professionals to encourage young college students (especially female students) to remain connected with, and seek support from, their families, when there is a need. It is also important for higher education institutions to promote a strong sense of family among the students and to implement programs that incorporate families into college life, such as family weekends, family dinner, family orientations, sibling week, and parent-child activities.

Conclusion

Using a large and ethnically diverse sample of college-attending young adults, the

results of this study found that familism was indirectly associated with depressive symptoms through family support and conformity to parental expectations. Familism was positively related to life satisfaction both directly and indirectly through family support. The positive relationship between family support and life satisfaction was greater for females than for males. The findings reaffirm the important roles of familism and family support in college-attending young adults' psychological well-being, especially the life satisfaction among females. The findings also lend support to the adverse role of conformity to parental expectations in college-attending young adults' psychological well-being. Finally, parents of young college students are strongly encouraged to remain connected with, and provide support for, their children.

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Appendix

Literature Review Table

Authors	Sample	Theory	Measures	Statistical Analysis	Relevant Findings
Campos, Schetter, Abdou, Hobel, Glynn, & Sandman (2008)	265 pregnant women (99 Latinas, 166 European Americans)	N/A	Familialism: A 10-item Familialism Scale (Gaines et al., 1997), Cronbach's $\alpha = .78-.85$. Perceived Social Support: The 19-item MOS Social Support Survey (Sherbourne & Stewart, 1991), Cronbach's $\alpha = .83-.97$.	correlational tests and planned Fisher z tests of the difference between correlations (Rosenthal & Rosnow, 1991)	For Latinas and European Americans alike, familialism was positively associated with feeling more supported, less stressed, and less anxious about pregnancy. The associations of familialism with social support and stress were more pronounced among Latinas relative to European Americans.
Campos, Ullman, Aguilera, & Schetter (2014)	1245 university students, Latino (n=218), European (n=294), Asian (n=733), majority female (80%), age range 18-38 years, M=19.93	The conceptual links between familism and close relationship processes suggest that familism should be linked to better psychological health, as it facilitates closeness and perceived support.	Familism: Familism Scale (Sabogal et al., 1987) and Attitudinal Familism Scale (Steidel & Contreras, 2003), Cronbach's $\alpha = .76-.87$. Perceived social support: The Medical Outcomes Study (MOS) Social Support Survey (Sherbourne & Stewart, 1991), Cronbach's $\alpha = .79-.97$. Psychological Health: Including perceived stress, general mental health, and depressive symptoms (measured by a 9-item form of the CES-D; Radloff, 1977; Santor & Coyne, 1997), Cronbach's $\alpha = .72-.96$.	Structural equation multiple-group modeling analyses. Indirect effect hypotheses were evaluated with Sobel (1982) tests.	Higher familism predicted more social support and this, in turn, was associated with better psychological health. Familism contributed to psychological health by facilitating social support. Did not find that familism was directly linked to psychological health.

Castillo, Conoley, & Brossart (2004)	247 Mexican American female college students (153 undergraduate, 94 graduate), age range 18-59, $M=25.67$	N/A	Family Support: Perceived Social Support Scale-Family (PSS-Fa; Procidano & Heller, 1983), Cronbach's $\alpha = .91$. Perceived Distress: The Outcome Questionnaire-45 (OQ-45; Lambert et al., 1996), Cronbach's $\alpha = .90$, high correlation with depression.	hierarchical regression analysis	Perceived support from family was related to lower perceived distress for participants.
Castillo & Hill (2004)	247 Mexican American female college students (153 undergraduate, 94 graduate), age range 18-59, $M=25.67$	N/A	Family Support: Perceived Social Support Scale-Family (PSS-Fa; Procidano & Heller, 1983), Cronbach's $\alpha = .91$. Perceived Distress: The Symptom Distress subscale (OQ45-SD) of OQ-45 (Lambert et al., 1996), Cronbach's $\alpha = .90$, high correlation with depression.	hierarchical regression analysis	Support from family was negatively related to distress. After controlling for demographics, family support more significantly predicted distress, with more support predicting lower levels of distress.
Fulgini & Pedersen (2002)	ethnically diverse sample of 745 12th-grade students entering young adulthood, 53% female, 47% male 1st cohort: 331 students, mean age = 21.2 2nd cohort: 414 students, mean age = 19.3	N/A	Attitudes Toward Family Obligation: Three measures that assessed participants' sense of obligation to support, assist, and respect their families. Cronbach's $\alpha = .84$ (current assistance), .79 (respect for family), .76 (future support). Emotional Well-Being: A measure of positive well-being developed by Mroczek and Kolarz (1998). Cronbach's $\alpha = .88$.	regressions	Young adults with a stronger sense of obligation to support, respect, and assist the family tended to report better emotional well-being. These relationships did not vary by gender.

Fulgini, Yip, & Tseng (2002)	140 Chinese immigrant adolescents mean age = 16.4, 76 girls, 64 boys	N/A	Daily Family Obligations: Adolescents indicated on the diary sheets whether they had engaged in any of the 11 activities to assist and spend time with the family, and estimated the total amount of time they had spent in all of the activities combined. Daily Psychological Distress: Assessed on a daily basis using items from two subscales (anxiety and depressive feelings) of the Profile of Mood States (Lorr & McNair, 1971).	Hierarchical Linear Modeling (HLM; Bryk & Raudenbusch, 1992)	Neither the level of adolescents' involvement in family obligations nor the daily-level balancing of family obligations with other activities was associated with youths' psychological distress.
Ghazarian, Supple, & Plunkett (2008)	97 Armenian American adolescents, 59% female, mean age = 14.87	N/A	Familism: 5-item Familism Scale (Bardis, 1959), Cronbach's $\alpha = .67$. Conformity to Parental Expectations: 9 items from Parent Behavior Measure (PBM; Peterson et al. 2004), Cronbach's $\alpha > .80$.	structural equation modeling (AMOS 6) using SPSS	Adolescents emphasizing family needs over their own were more likely to report conformity to parents' wishes, respect for parental authority, and disclosure to parents about activities.
Gray & Steinberg (1999)	8,700 adolescents, age range 14-18, 49.3% male, 50.7% female, ethnically diverse (61.2% white)	prototypic styles of parenting (Baumrind, 1967, 1971)	Psychological autonomy granting: Parenting practices items taken or adapted from existing measures (e.g., Dornbusch et al., 1985; Patterson & Stouthamer-Loeber, 1984; Rodgers, 1966) or developed for this program to assess the extent to which parents employ noncoercive, democratic discipline and encourage the adolescent to express individuality in the family. Cronbach's $\alpha = .82$. Internal Distress: Two subscales derived from CES-D (Radloff, 1977), including somatic symptoms scale and psychological symptoms scale (anxiety, tension, and depression), Cronbach's $\alpha = .88$.	multiple and hierarchical regression analyses	Psychological autonomy granting is negatively related to internal distress (including psychological symptoms of depression, anxiety, and tension), producing a small to medium effect.

Hamon & Schrodt (2012)	213 young adults (undergraduate students), 120 females and 93 males, mean age=19.34, mostly Caucasian (86.9%)	Koerner and Fitzpatrick's (2002) general theory of family communication schemata	Family Communication Patterns: Revised Family Communication Patterns (RFCP) instrument (Fitzpatrick & Ritchie, 1994; Koerner & Fitzpatrick 2002), Cronbach's α (conformity subscale) = .79. Mental Well-Being: Self-esteem (RSES) and depression (CES-D; Radloff, 1977), Cronbach's α = .91.	hierarchical regression analysis & covariance (ANCOVAs)	Family conformity had a positive main effect on depression. Young adults from pluralistic families (low conformity orientation) had higher self-esteem and lower depression than those from protective, laissez faire, and consensual families.
Holahan, Valentiner, & Moos (1994)	175 college students, mean age =20, 124 female, 51 male, ethnically diverse (75% white)	N/A	Parental Support: Three measures (maternal support, paternal support, & parental marital conflicts) from Life Stressors and Social Resources Inventory - Youth Form (LISRES-Y; Daniels & Moos, 1990; Moos & Moos, 1992), Cronbach's α = .89-.90. Well-Being: Derived from Harter's (1986) General Self-Worth scale and Weinberger's (1989) Happiness scale, Cronbach's α = .90. Distress: Derived from Weinberger's (1989) Depression Scale and Spielberger's (1973) State Anxiety Scale, Cronbach's α = .85.	two models (time lag model and change model) were formulated in integrative structural equation analyses using LISREL VII	Parental support played an important adaptive role during the transition to young adulthood. Initial parental support was associated with better psychological adjustment 2 years later, both directly and indirectly through sociable disposition.
Koerner & Fitzpatrick (1997)	61 parents and 56 children (26 male, 30 female), age range 8-27, M=16	Fitzpatrick and Ritchie's (1994) family typology based on family communication schemata	Conformity Orientation: Revised Family Communication Patterns (RFCP) instrument (Ritchie, 1990), Cronbach's α = .76. Depression: NEO-PI personality inventory (Costa & McCrae, 1992), Cronbach's α = .82.	hierarchical regression analysis	There was a statistically significant negative correlation between conformity orientation and averaged family reported depression.

Kuhlberg, Peña, & Zayas (2010)	226 Latina adolescents (121 female suicide-attempters, 105 non-attempters), age 11-19, $M=15.47$	N/A	Internalizing Behaviors: The internalizing behavior subscale in Youth Self-Report (Achenbach, 1991), Cronbach's $\alpha = .91$. Parent-Adolescent Conflict: 15 dichotomous items from the Conflict Behavior Questionnaire (Robin & Foster, 1989), Cronbach's $\alpha = .91$. Familism: Attitudinal Familism Scale (LugoSteidel & Contreras, 2003), Cronbach's $\alpha = .87$.	Path Analysis using Mplus Version 5.2	Familism is positively related to internalizing behaviors and negatively related to parent-adolescent conflict. Familism is negatively related to parent-adolescent conflict, which in turn, is positively related to internalizing behaviors.
Lee, Dik, & Barbara (2015)	600 undergraduate students, 79.5% female, 20.5% male, age range 18-25, $M=19.99$, ethnically diverse (52% white)	theoretical model on intergenerational solidarity (Bengtson, 2001)	Familism: Attitudinal Familism Scale (Lugo Steidel & Contreras, 2003), Cronbach's $\alpha = .86$. Perceived family support: The subscale of family support (4 items) in the Multidimensional Scale of Perceived Social Support (MSPSS; Zimet, Dahlem, Zimet, & Farley, 1988), Cronbach's $\alpha = .92$. Psychological distress: Center for Epidemiologic Studies-Depression Scale (CES-D; Radloff, 1977), Cronbach's $\alpha = .90$.	PROCESS (Hayes, 2013) was conducted to test the proposed multiple mediator model	Familism was positively related to depressive symptoms: Higher endorsement of familism was associated with more depressive symptoms reported. Family support was found to be a mediator between familism and adjustment: Those with higher levels of endorsement on familism perceived more support from the family, which, in turn, was associated with fewer depressive symptoms.
Lorenzo-Blanco, Unger, Ritt-Olson, Soto, & Baezconde-Garbanati (2013)	1,436 Hispanic students, 54% female, 85% 14 years old, 86% U.S. born	N/A	Familismo: Assessed by 4 items. Three items came from the familismo scale described by Sabogal, Marin, Otero-Sabogal, & Marin (1987), and one item from the familismo scale described by Cuéllar et al. (1995). Cronbach's $\alpha = .79$. Family Cohesion and Family Conflict: Each was assessed with six items from FACES II (Olson et al., 1982). Cronbach's $\alpha = .77$ and .69.	structural equation modeling using Mplus Version 6.1	Familismo was linked with lower family conflict and increased family cohesion. These links were stronger for girls.

Mounts (2004)	319 college freshmen, 27% African American, 73% White; 37% male, 63% female, $M=18.41$	N/A	Parental Support: Self-created 36-item scale to assess the extent to which parents supported the participants in their transition to college, covering financial, academic, and social dimensions. Cronbach's $\alpha = .91-.92$. Depression: the Beck Depression Inventory (Beck, Ward, Mendelson, Mock, & Erbaugh, 1961). Cronbach's α $= .85-.86$.	multiple-group structural- equation-model; hierarchical regression analyses	Higher levels of parental support were related to lower levels of depression for both ethnic groups.
Niemeyer, Wong, & Westerhaus (2009)	Hispanic and Caucasian adolescents, $N=163$, 59% female, mean age = 14.05	N/A	Parental Involvement: Ten self-report items. Eight items from the Parental Involvement Scale (Mji & Mbinda, 2005), plus two questions that are particularly relevant for Hispanic parents (López et al., 2001). Familismo: The Attitudinal Familism Scale (Steidel & Contreras, 2003).	structural equation modeling analyses	Familismo was positively related to parental involvement. Students who endorsed familismo were more likely to view parents as involved in their schoolwork.
Paterson & Hakim-Larson (2012)	98 Arab youth in Canada (73 female, 25 male), aged 15-21	N/A	Perceived Social Support from Family (PSS-Fa; Procidano & Heller, 1983), Cronbach's $\alpha = .90$. Multidimensional Student Life Satisfaction Scale (MSLSS; Huebner, 1994), Cronbach's $\alpha = .90$ (7 items for family domain).	hierarchical linear regression	Perceived family social support correlated positively with life satisfaction in family domain.

Schrodt, Ledbetter, & Ohrt (2007)	567 young adults (undergraduate students), 246 male and 321 female, age ranging from 18 to 36 (M= 20.0), mostly White (86.6%)	Koerner and Fitzpatrick's (2002) general theory of family communication schemata	Perceptions of Family Communication: the RFCP instrument (Fitzpatrick & Ritchie, 1994; Ritchie, 1991; Ritchie & Fitzpatrick, 1990), Cronbach's α (conformity subscale) = .78. Mental Health: Mental health subscale of Dornbusch, Mont-Reynaud, Ritter, Chen, and Steinburg's (1991) physical and mental health symptom instrument, Cronbach's α = .81.	one-tailed Pearson product-moment correlations	Conformity orientation is positively associated with mental health symptoms (including feeling depressed).
Schwartz et al. (2010)	10,573 undergraduate students (mean age=20.3, 73% women, ethnically diverse) from 30 colleges in 20 US states	N/A	Familism: Attitudinal Familism Scale (Lugo Steidel & Contreras, 2003), Cronbach's α = .83 for Hispanics and .89 for Blacks. Life Satisfaction: 5-item Satisfaction with Life Scale (Pavot & Diener, 1993), Cronbach's α = .85-.89. Depressive Symptoms: CES-D (Radloff, 1977), Cronbach's α = .86-.88.	multivariate mode	Familism was positively related to both positive psychological functioning (including life satisfaction) and psychological distress (including depressive symptom). But the percentages of variability explained were very small.
Sheets & Mohr (2009)	210 bisexual university students, age range 18-25, M=20.96, 85% female, 15% male, 81% White	N/A	Perceived Social Support from Family: Self-reported perceptions of general social support from family (GSS-Fam; Procidano & Heller, 1983), Cronbach's α = .89. Depression: Center for Epidemiologic Studies Depression Scale (CES-D; Radloff, 1977), Cronbach's α = .92. Life Satisfaction: Satisfaction With Life Scale (Diener, 1985), Cronbach's α = .90.	hierarchical regression analyses and multiple regression analyses	General family support was negatively related to depression, and positively related to life satisfaction. No gender difference was found.

Shulman, Kalnitzki, & Shahar (2009)	236 Israeli emerging adults, 115 male, 121 female, mean age=23.04	social-psychological conceptualizations (Cote, 1996, 1997, 2002), and recent theoretical developments within personality and developmental psychology	Social Support: The Network of Relationship Inventory (NRI; Furman & Buhrmester, 1985), Cronbach's $\alpha = .91$ -.94 (mother), .89-.90 (father). Mental Health (Depression & Anxiety): Brief Symptom Inventory (BSI; Derogatis & Melisaratos, 1983), Cronbach's $\alpha = .90$ -.92 (6-item depression subscale).	multiple hierarchical regression analyses	Family support is important in the lives of young people. Parents continue to be the most important source of support when major issues and decisions are considered. Paternal support predicts young people's better adaptation (lower depression) 1 year later.
Smokowski, Rose, & Bacallao (2010)	359 Latino adolescents (55% female), median grade: 10th grade	N/A	Parent & Child Conflict: Conflict Behavior Questionnaire-20 (CBQ-20; Robin & Foster, 1989). Cronbach's $\alpha = .89$. Familism: 7-item scale (Gil, Wagner & Vega, 2000), Cronbach's $\alpha = .87$. Internalizing Symptoms: Child Behavior Check List (CBCL/4-18), Cronbach's $\alpha = .89$, and Youth Self-Report (YSR; Achenbach, 1991), Cronbach's $\alpha = .85$.	longitudinal hierarchical linear model	Familism was associated with fewer internalizing symptoms. Parent-adolescent conflict was a strong risk factor that directly heightened internalizing symptoms.
Suldo & Huebner (2004)	1188 adolescents, age range 11-19, $M=14.6$, 64% female, 58% African American	parenting theory (Baumrind, 1991; Steinberg et al., 1992, 1999)	Students' Life Satisfaction Scale (SLSS) (Huebner, 1991), Cronbach's $\alpha = .83$. Family Support Scale (FSS) (Wills & Cleary, 1996), Cronbach's $\alpha = .81$ (emotional support subscale) and .74 (instrumental support subscale). Psychological Autonomy Granting (PAG) subscale of the Authoritative Parenting Measure (Steinberg, Elmen, & Mounts, 1989), Cronbach's $\alpha = .82$.	simultaneous multiple regression analysis	Social support and psychological autonomy granting from parents were positively related to adolescents' life satisfaction, with perceived parental social support being the strongest correlate.

Telzer & Fuligni (2009)	ethnically diverse sample of 752 adolescents, age range 14-17, M= 14.88, male 49%, female 51%, majority Mexican (31%)	social identity theory	Daily Family Assistance: Adolescents indicated whether they had engaged in any of the eight activities, such as assist with household, assist with siblings, and assist with parents' work, in a 14-day period. Daily Psychological Well-Being: Profile of Mood States (POMS; Lorr & McNair, 1971), and a happiness scale modeled after the POMS (Fulgini et al., 2006). Cronbach's $\alpha = .74-.76$ (daily-level), .94 (individual-level)	mean differences and regression analyses; multilevel modeling	Family assistance is associated with higher levels of happiness due to the sense of role fulfillment and connection to the family it provided to the adolescents. This association is significant for boys but not for girls.
Ying & Han (2007)	882 Asian American adolescents and their parents (391 immigrants, mean age=17.01; 491 refugees, mean age = 17.37.)	N/A	Depression: Center for Epidemiologic Studies – Depression Scale (CES-D) (Radloff, 1977), Cronbach's $\alpha = .77$. Familism: Measured by 3 items: "If someone has the chance to help a person get a job, it is always better to choose a relative rather than a friend;" "When someone has a serious problem, only relatives can help;" and "When looking for a job, a person should find a job near his/her parents even if it means losing a better job somewhere else." Cronbach's $\alpha = .64$.	regressions using one-tail tests	Higher familism was predictive of greater depression in refugee children, but not in immigrant children.
Young, Miller, Norton, & Hill (1995)	a sample of 640 adolescents aged 12-16, drawn from the National Survey of Children, 319 male, 321 female, all races	Symbolic-interactionist stance (LaRossa & Reitzes, 1993)	Parental Support: Include 3 factors - intrinsic support, extrinsic support, and parental closeness. Cronbach's $\alpha = .64-.82$. Life Satisfaction: Self-created 5-item scale, Cronbach's $\alpha = .68$.	structural equation modeling analyses	Parental support was positively related to adolescents' life satisfaction. Intrinsic support (child's perception on parents' love and care) was the most predictive of life satisfaction. No gender difference was found.

Zeiders, Updegraff, Umaña-Taylor, Wheeler, Perez-Brena, & Rodríguez (2013)	492 Mexican-origin adolescents. Aged 12- 22. Male and female.	N/A	Depressive Symptoms: CES-D (Radloff, 1977). Cronbach's $\alpha = .85$ (T1), .88 (T2), .90 (T3), .89 (T4) Familism: Mexican-American Cultural Values Scale (Knight, et al, 2009). Cronbach's α = .77 (T1), .78 (T2), .76 (T3), .74 (T4) for obligation; .77 (T1), .84 (T2), .78 (T3), .66 (T4) for supportive familism; and .74 (T1), .74 (T2), .68 (T3), .75 (T4) for referent familism.	cohort sequential design, multilevel modeling (MLM) growth models in PROC MIXED in SAS 9.2	Higher levels of supportive and referent familism values were related to fewer depressive symptoms within individuals. Obligation familism values were not associated with depressive symptoms. No gender difference was found.
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